CLAIMS

What is claimed is:

1. An arrangement of a videoconference end-point comprising:

a projective surface;

a video projector emitting a beam of light creating one or more images on the projective surface;

an end-point associated video camera directed towards the video projector and residing within said beam of light;

a beam area generator adapted to generate an area of light or absence of light in said beam replacing a part of, and/or adding a part to, said one or more images, to cover at least a part of said video camera and thereby prevent the video camera from substantially capturing the beam of light.

2. An arrangement according to claim 1, further comprising a camera position detector adapted for determining size and shape of said area.

3. An arrangement according to claim 2, wherein the camera position detector is adapted to detect position, orientation and/or tilt and/or changes in position, orientation and/or tilt of the video camera relative to said one or more images and to provide information of the position and changes to said beam area generator for placing and adjusting said area of light or absence of light to cover at least a part of said camera.

4. An arrangement according to claim 3, wherein said camera position detector includes one or more light sensors positioned close to and/or around said video camera adapted to sense and signal to said beam area generator when an edge of said area of light or absence of light is crossing one of the sensor(s).

5. An arrangement according to claim 3, wherein said camera position detector includes said video camera adapted to sense and signal to said beam area generator when a predefined amount and/or distribution of said light beam is captured.

6. An arrangement according to claim 3, wherein said camera position detector includes one or more auxiliary camera(s) directed towards the projective surface each capturing a respective spot of the one or more images that is being transmitted to said beam area generator, wherein the captured spot(s) is/are identified with respect to position(s) within the one or more images, which, in addition to the angle and/or position(s) of the auxiliary camera(s) relative to the video camera, is/are used to derive the position, orientation and/or tilt of the video camera.

7. An arrangement according to claim 3, wherein said camera position detector is adapted to generate a glimpse of a predefined dummy light in all pixels of said one or more images, one or a number of pixels at a time, and to detect when the camera position detector captures the dummy light and simultaneously noticing which of the pixels at the time being having the dummy light value assigned, wherein the beam area generator is adapted to define the area by the noticed pixels.

8. An arrangement according to claim 3, wherein said camera position detector includes the projective surface adapted to sense said one or more images and a shadow formed by the video camera, wherein the beam area generator is adapted to define the area from the sensed shadow.

9. An arrangement according to claim 3, wherein said beam area generator is adapted to initialize the position and/or size of said area of light or absence of light by initially generating the area to cover substantially the whole of said one

or more images and then shrinking the area until said position detector detects one or more edges of said area.

10. An arrangement according to one of the claim 3, wherein said beam area generator is adapted to initialize the position and/or size of said area of light or absence of light by initially generating the area to cover a part of said one or more images residing within said video camera and then expanding the area until said position detector detects one or more edges of said area.

11. An arrangement according to claim 3, wherein said beam area generator is adapted to use an initial position and/or size of the area as reference, and to carry out subsequent adjustments of position and/or size of the area by associating a mechanical distance of movement of the video camera with a corresponding deviation of the area relative to the reference in image pixels.

12. An arrangement according to claim 2, wherein the camera position detector is integrated in or connected to a codec and/or the video camera.

13. An arrangement according to claim 2, wherein the video camera is placed in front of or behind the projective surface.

14. A method of operating a videoconference end-point comprising:

emitting a beam of light from a video projector to create one or more images on a projective surface;

directing an end-point associated video camera towards the video projector, the camera residing within said beam of light;

generating an area of light or absence of light in said beam to replace a part of, or add a part to, said one or more images; and

adjusting at least the position of said area of light or absence of light to cover at least a part of said video camera to thereby prevent the video camera from substantially capturing the beam of light.

15. A method according to claim 14, further comprising detecting position, orientation and/or tilt and/or changes in position, orientation and/or tilt of the video camera relative to said one or more images by means of light sensor(s) and/or the video camera itself, and providing information of the changes to adjust said area of light or absence of light according to the detection.

16. A method according to claim 14, further comprising capturing one or more spots of the one or more images from a known position and/or angle relative to the video camera, identifying the captured spot(s) with respect to position(s) within the one or more images, deriving the position, orientation and/or tilt of the video camera from the identified captured spot(s) and said known position and/or angle.

17. A method according to claim 14, further comprising generating a glimpse of a predefined dummy light in all pixels of said one or more images, one or a number of pixels at a time, and detecting when the dummy light is captured by the video camera and simultaneously noticing which of the pixels at the time being having the dummy light value assigned, defining the area of light or absence of light by means of the noticed pixels.

18. A method according to claim 14, further comprising initializing the position and/or size of said area of light or absence of light by initially generating the area to cover substantially the whole of said one or more images, and shrinking the area until said one or more edges of said area is/are detected.

19. A method according to claim 14, further comprising initializing the position and/or size of said area of light or absence of light by initially generating the area to cover a part of said one or more images residing within said video camera, and expanding the area until one or more edges of said area is/are detected.